Texas Farm and Ranch Lands Conservation Program

Evaluation Report

TEXAS A&M IRNR
Institute of Renewable Natural Resources

PREPARED FOR

TEXAS AGRICULTURAL LAND TRUST

TEXAS LAND TRUST COUNCIL

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Texas Farm and Ranch Lands Conservation Program
Evaluation Report

I. Executive Summary

Texas is comprised of 142 million acres of private farms, ranches, and forestlands, leading the nation in land area devoted to privately-owned *working lands*. For the purpose of this report, *working lands* are defined as farms, ranches, and family forests or agricultural lands with a 1-D/1-D-1 appraisal. These working lands are under increasing land conversion and fragmentation pressure. Due in part to rapid loss of agricultural lands, the Texas Legislature created the Texas Farm and Ranch Lands Conservation Program (TFRLCP or the Program) in 2005 and subsequently provided a $2M allocation to the program in 2015. The *objective* of this report was to evaluate the implementation of the TFRLCP under the management of the Texas Parks and Wildlife Department. The report is divided into three sections: (1) project assessments, (2) future demand, and (3) program recommendations. Under project assessments, a water assessment, working lands assessment, and a financial leveraging calculation were conducted for each TFRLCP project award. For the future program demand section, data collected from the Texas Parks and Wildlife Department's (TPWD) Private Lands Advisory Committee (PLAC) and the Texas Land Trust Council (TLTC) land trust survey were summarized to gauge future demand for an expanded state-funded conservation easement program. In the final section, some program recommendations are provided to enhance the execution of the TFRLCP in promoting land conservation in the state. Some key findings and recommendations from the report are outlined below:

Key Findings:

- TFRLCP projects protected over 8,200 acre-feet of water with a replacement cost value of over $11.6M. From a water management strategy perspective, land conservation should be considered a low-cost, effective strategy for protecting Texas' water resources.
- TPWD PLAC and TLTC survey data suggest a strong landowner willingness (34%) to participate in a state-funded conservation easement program.
- TFRLCP performed exceptionally well in leveraging partner funds (7:1).
- Conservation of working lands in the most rural or most urban areas as a strategy should be further evaluated for the TFRLCP moving forward.

Program Recommendations:

- Standardize key project metrics (i.e., working lands, water) in order to allow a side-by-side comparison of project applications.
- Develop a standardized method for determining initial market values to inform the return on investment evaluations.
- Build robust financial metrics to evaluate program trends in TFRLCP for obtaining continued state support.
- Work closely with TLTC to collect project demand data to aid in appropriation requests.

II. Background

Texas is comprised of 142 million acres of private farms, ranches, and forestlands, leading the nation in land area devoted to privately-owned *working lands*. These working lands account for 83% of the state's entire land area and provide substantial economic, environmental, and recreational resources that benefit many Texans. They produce food and fiber, support rural economies, and provide wildlife habitat, clean air and water, and recreational opportunities. Working lands are under increasing land conversion and fragmentation pressure driven by rapid population growth, suburbanization, and rural development, all of which have implications for the state's rural economy, national security, food security, and the conservation of natural resources. From 1997-2012, there was a net loss of approximately 1.1 million acres of working lands, converted to non-agricultural uses (Texas Land Trends 2014). At the same time, Texas gained over 21,000 new farms and ranches while average ownership size declined from 581 acres to 521 acres. The rising demand for land has contributed to an increase in market values, and an increasing gap between the market and productivity land values. Data from the most recent *Texas Land Trends* analyses suggests the magnitude in difference between market value and productivity value is an early predictor of land use conversion and ownership fragmentation.

The objective of this report was to evaluate the implementation and early effectiveness of the Texas Farm and Ranch Land Conservation Program (TFRLCP) under the leadership of the Texas Parks and Wildlife Department (TPWD). Specifically, this report serves to (1) assess TFRLCP projects and their alignment to statutory guidance, and (2) provide recommendations on future program strategies for consideration by the department. The data used in the analyses were provided by the TPWD'S TFRLCP, the Texas A&M Institute of Renewable Natural Resource's *Texas Land Trends*, and other external sources (e.g., TPWD Private Lands Advisory Committee (PLAC) landowner questionnaire, Texas Land Trust Council questionnaire [TLTC]).

The report is divided into 3 sections: (1) project assessments, (2) future demand, and (3) program recommendations. Under project assessments, a water assessment, working lands assessment, and a financial leveraging calculation were conducted for each TFRLCP project. The future program demand section summarized questionnaire data collected from the TPWD PLAC and TLTC to gauge the demand for a state-funded conservation easement program.

III. Project Assessments

In 2016, a total of 15 project applications were submitted to the TFRLCP during the initial funding cycles. Of these 15 applications, the following 7 projects were selected for program funding (Table 1):

Puryear Ranch – 425 acres in Travis County along Rocky Creek, a major tributary of Barton Creek and adjacent to the Shield Ranch where 6,700 acres are already protected by conservation easement. Habitat consists of oak-juniper woodlands and savannahs. Award: $131,850. Project submitted by Hill Country Conservancy.

Albritton Ranch – 650 acres in Bandera County near Lost Maples State Park and Love Creek Preserve in the Bandera Canyonlands with oak-juniper forest, big tooth maple stands and numerous springs. Habitats support golden-cheeked warbler and black-capped vireo. Award: $325,000. Project submitted by The Nature Conservancy.

Dreamcatcher Ranch – 211 acres in Hays County in quickly developing San Marcos. This property is a working cattle ranch. Additionally, it contains oak-juniper forest, riparian habitat, and numerous recharge features that support Sink Creek and the San Marcos Springs. Award: $378,089. Project submitted by Guadalupe Blanco River Trust.

Lazy Bend Ranch – 144 acres in Hays County near the 3,950-acre Storm Ranch conservation easement and subject to intense development pressure. Habitat consists of Edwards Plateau savannah and oak-juniper woodlands, including occupied golden-cheeked warbler habitat. Award: $75,925. Project submitted by Hill Country Conservancy.

Javelina Ranch – 280 acres in Hidalgo County. The habitat represents some of the remaining original Tamaulipan Thornscrub in the Lower Rio Grande Valley. The biggest threat in the Valley is to fragmentation and development. The Javelina Ranch presents educational and scientific opportunities as well as serving as home to several threatened and endangered plants and animals. Award: $400,000. Project submitted by the Valley Land Fund.

Santa Anna Lower Tract – 1,738 acres in Coleman County. The ranch is a commercial agricultural operation raising wheat, hay, and cattle. Half a mile of the Colorado River forms its southern border. Habitat consists of native Edwards Plateau eco-region rangeland supporting a number of wildlife species. Award: $208,515. Project submitted by the Texas Agricultural Land Trust.

Pietila Ranch – 7,100 acres in Culberson County sharing six miles of common boundary with Guadalupe Mountains National Park. Habitat consists of high desert grasslands; springs and headwaters for McKittrick Creek. Award: $375,000. Project submitted by The Nature Conservancy.

Table 1. Texas Farm and Ranch Lands Conservation Program project summary data, 2016.

Priority	Project	Applicant	County	Acreage	Total Project CE Value	TFRLCP Grant Award
1	Puryear	Hill Country Conservancy	Travis	425	$5,656,850	$131,850
2	Albritton	The Nature Conservancy	Bandera	675	$975,000	$325,000
2	Dreamcatcher	Guadalupe Blanco River Trust	Hays	211	$3,375,589	$378,089
2	Lazy Bend	Hill Country Conservancy	Hays	144	$1,026,925	$75,925
3	Javelina	Valley Land Fund	Hidalgo	280	$669,300	$400,000
5	Santa Anna	Texas Agricultural Land Trust	Coleman	1,738	$834,060	$208,515
6	Pietila	The Nature Conservancy	Culberson	7,093	$1,500,000	$375,000
TOTALS				**10,566**	**$14,037,724**	**$1,894,379**

Most state, federal, and conservation non-government organizations (NGOs) have gone through the process of identifying priority areas to focus their conservation efforts. These areas are selected based on a wide-array of variables and ecological factors depending on the goals of the organization. For the TFRLCP, an early effort to determine target areas of opportunities based on statutory guidance was conducted at a statewide scale. Specifically, in the report *Determining Targets and Areas of Opportunities for Supporting the Texas Farm and Ranch Lands Conservation Program* (IRNR 2015), an effort to identify areas of potential land conservation priorities based on statutory guidance and the amount of funding needed for program implementation was conducted. In that report, counties were prioritized based on the presence of high competition for and/or increasing demand for water, impaired streams, highly productive agricultural lands, existing protected lands, and existing partner priority areas. The analysis also identified highly productive agricultural lands, opportunities to conserve and protect water resources in high withdrawal areas, opportunties to leverage state money by identifying existing protected lands, where other conservation organizations are working, and where additional public benefit, such as watershed protection and protection of wildlife habitat, can be realized. Layers were converted to binary form based on presence (value of 1) or absence (value of 0) of the feature in the county. Counties were then ranked, based on the summation of these criteria, to get a priority count across the state (Figure 1). Dark green represents the most desired conservation features present and the lightest green reflects the least. TFRLCP projects (Table 1) are overlayed on the priority map to show geographic distribution (Figure 1, red stars), and included throughout the report as a point of reference.

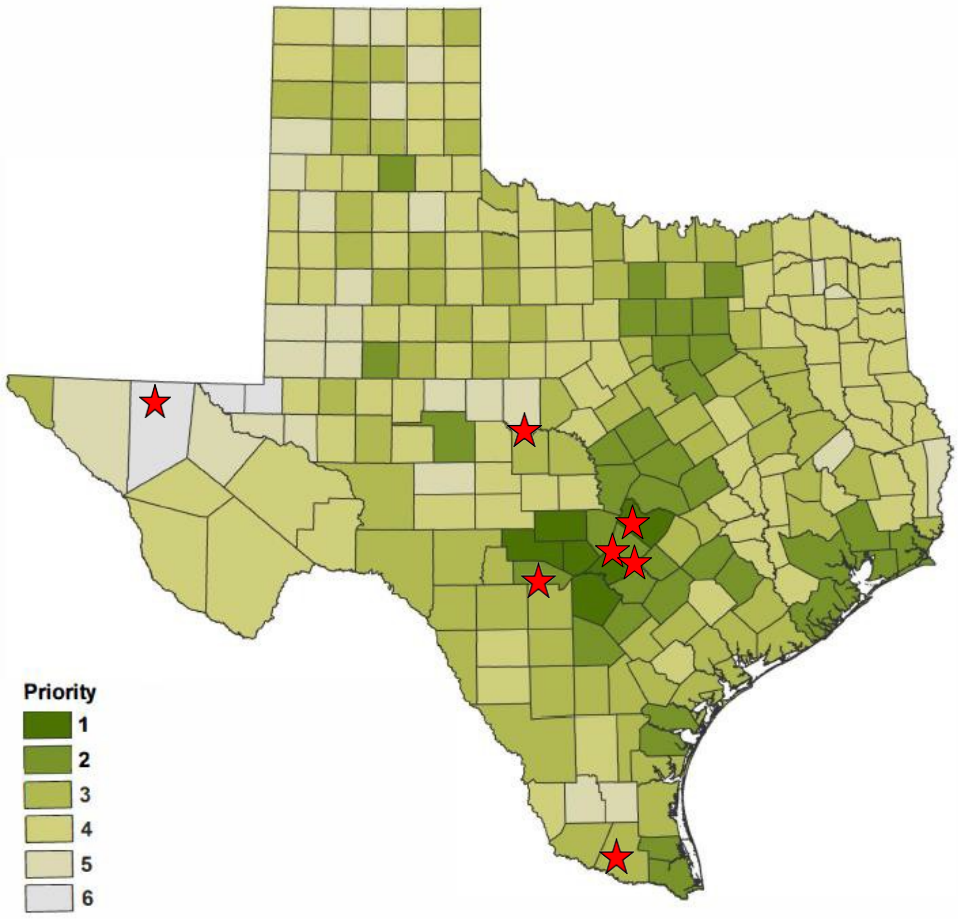

Figure 1. Priority counties by conservation potential and locations of awarded TFRLCP projects (red stars). 1 = highest concentration of priority metrics.

Water Analysis

Two components of water were analyzed: (1) potential infiltration rate of the project to a watershed or groundwater supply, and (2) the relative replacement cost of those water resources if the project properties were to be developed. Potential infiltration rates were calculated using Texas Water Development Board (TWDB) 75-year quadrant precipitation data and infiltration rate of 50% (Table 2, Arnold and Gibbons 1996). The costs of implementing a region's water management strategy was derived from the 2017 Texas State Water Plan. Costs were then divided by the projected water yield from the regional strategies (Table 2) to determine cost/acre-foot by region. Finally, the water replacement cost was estimated for each property (Table 2). Calculations for all estimates are noted in Table 2 footnotes.

Table 2. Texas Farm and Ranch Lands Conservation Program project water analysis, 2016.

Project	County	TWDB Planning Region	Acreage	Average Annual Rainfall (inches) [a]	50% Infiltration Rate (Acre-Feet) [b]	$/Acre-Foot by Region [c]	Replacement Cost of Captured Water [d]
Puryear	Travis	K	425	31.80	563	$1,070	$602,410
Albritton	Bandera	J	675	26.70	751	$1,116	$838,116
Dreamcatcher	Hays	K/L	211	32.39	285	$2,271	$646,100
Lazy Bend	Hays	K/L	144	32.39	195	$2,271	$441,710
Javelina	Hidalgo	M	280	24.04	281	$663	$185,972
Santa Anna (Lower)	Coleman	F	1,738	24.63	1,784	$1,110	$1,979,685
Pietila	Culberson	E	7,093	14.85	4,389	$1,596	$7,004,844
TOTALS			**10,566**		**8,248**		**$11,698,837**

[a]= average of TWDB's 75-year quadrant precipitation data
[b]= 50% infiltration rate = (((acreage*average annual rainfall)*27,154 [gallons/1inch of rain over acre]) / (325,851 [gallons/acre-foot of water]))/2
[c]= TWDB State water plan: total costs for water management strategies for given region / total projected yield for those strategies [acre-foot]
[d]= b x c

The region by region analysis (Table 2) shows that the cost of creating new water sources varies widely across the state. Further, because land conservation is being assessed as a water management strategy, valuing water in this manner allows the water replacement cost to be compared, in relative terms, against the cost of conserving the land. The analysis suggests the 7 TFRLCP projects could potentially capture a total of 8,248 acre-feet annually, which represents a water replacement cost of over $11.6M. This also represents an average price per acre-foot of $1,418.38/acre-foot. TFRLCP's cost to conserve the land and protect this water is approximately $2M (Table 1), which represents a 6:1 leveraging of TFRLCP's funds to protect land and the associated water resources.

Working Land Analysis

The *Texas Land Trends* data were used to characterize TFRLCP properties by county and compare countywide trends to statewide trends for the period of 1997–2012 (Table 3). As expected, generally higher priority counties experienced greater increases in population and associated losses of working lands (Table 3). Travis and Hays counties experienced overall net losses in working lands. Bandera County experienced losses in traditional working land categories (e.g., row crops, grazing, etc.) but those losses shifted with gains in the number of enrolled acres in wildlife management (Figure 2). In comparing working land loss at the county level to the statewide average, TFRLCP properties in higher priority categories were on average higher than the statewide average. In contrast, lower priority counties had lower threats of working land loss, suggesting that future TFRLCP strategies might consider targeting properties in the mid-range priority counties (e.g., 2-5).

Table 3. Texas Farm and Ranch Lands Conservation Program project working land analysis, 2016. Distribution of major agricultural categories (at county level, acres) from *Texas Land Trends* data by project.

Project	County	Cropland	Grazing Land	Wildlife	Total Working Lands	Pop. % Change	Working Land % Change
Puryear	Travis	40,768	128,126	36,110	205,004	48%	-23%
Albritton	Bandera	15,859	393,841	126,294	535,994	51%	3%
Dream-catcher	Hays	29,333	222,485	55,785	307,603	112%	-11%
Lazy Bend	Hays	29,333	222,485	55,785	307,603	112%	-11%
Javelina	Hidalgo	320,222	393,713	0	713,935	65%	-3%
Santa Anna (Lower)	Coleman	176,749	632,774	2,265	811,788	-11%	<1%
Pietila	Culberson	2,841	2,712,516	0	2,715,357	-19%	1%
STATEWIDE		25,203,278	105,036,897	3,306,557	141,421,295	36%	-1%

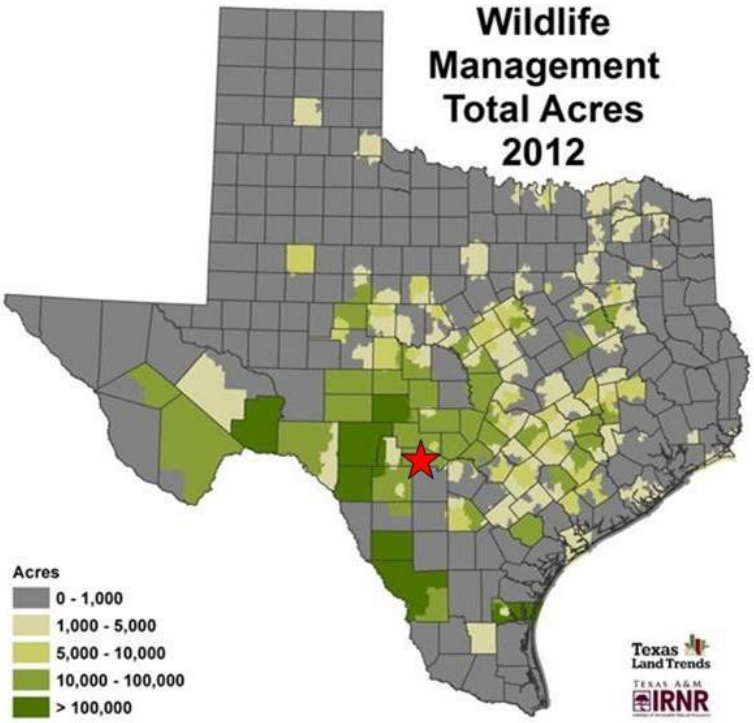

Figure 2. Wildlife valuation acreages by county (Bandera County with red star), 2016.

The National Land Cover Database (NLCD) was used to estimate working land categories or classes for each of the TFRLCP projects (Table 4, Figure 3). The NLCD analysis divided the land uses into 3 broad categories of developed, open, and other. For this assessment, the broad categories were refined into 3 categories: developed, open, and forest. The analysis showed grassland was the largest land use (64%) followed by pastureland (7%), cropland (8%), and forestland (16%) (Figure 3). Other features noted in the project assessments included protection of approximately >5.5 miles of river/creeks (Dreamcatcher, Lazy Bend, Pietila, Puryear, and Santa Anna), 25 acres of wetlands (Javelina), and 99 acres of aquifer recharge zone (Dreamcatcher).

Table 4. Estimated working land categories (acres) for TFRLCP projects based on the National Land Cover Database (NLCD)[a].

Project	Acres	Developed Open Space	Developed Low Intensity	Shrubland	Grassland	Pasture	Cultivated Crops	Evergreen Forests	Deciduous Forests	Woody Wetland
Albritton	675	0	0	71	2	0	0	585	17	0
Dreamcatcher	211	3	0	38	56	37	0	73	4	0
Javelina	280	7	8	218	0	0	4	0	37	7
Lazy Bend	144	0	0	46	8	0	0	76	12	1
Pietila	7,093	95	2	0	6,159	727	0	0	110	0
Puryear	425	30	1	196	109	0	0	36	54	0
Santa Anna (Lower)	1,738	63	0	337	471	0	814	14	38	0
TOTALS	**10,566**	**198**	**11**	**906**	**6,805**	**764**	**818**	**784**	**270**	**8**

[a] ***NLCD Definitions:***

Developed, Open Space - Includes areas with a mixture of some constructed materials, but mostly vegetation in the form of lawn grasses. Impervious surfaces account for less than 20% of total cover. These areas most commonly include large-lot single-family housing units, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes.

Developed, Low Intensity - Includes areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 20-49% of total cover. These areas most commonly include single-family housing units.

Shrubland/Scrub - Areas dominated by shrubs; less than 5 meters tall with shrub canopy typically greater than 20% of total vegetation. This class includes true shrubs, young trees in an early successional stage or trees stunted from environmental conditions.

Grassland/Herbaceous - Areas dominated by grammanoid or herbaceous vegetation, generally greater than 80% of total vegetation. These areas are not subject to intensive management such as tilling, but can be utilized for grazing.

Pasture/Hay - Areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20% of total vegetation.

Cultivated Crops - Areas used for the production of annual crops, such as corn, soybeans, vegetables, tobacco, and cotton, and also perennial woody crops such as orchards and vineyards. Crop vegetation accounts for greater than 20% of total vegetation. This class also includes all land being actively tilled.

Evergreen Forest - Areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. More than 75% of the tree species maintain their leaves all year. Canopy is never without green foliage.

Deciduous Forest - Areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. More than 75% of the tree species shed foliage simultaneously in response to seasonal change.

Woody Wetlands - Areas where forest or shrub land vegetation accounts for greater than 20% of vegetative cover and the soil or substrate is periodically saturated with or covered with water.

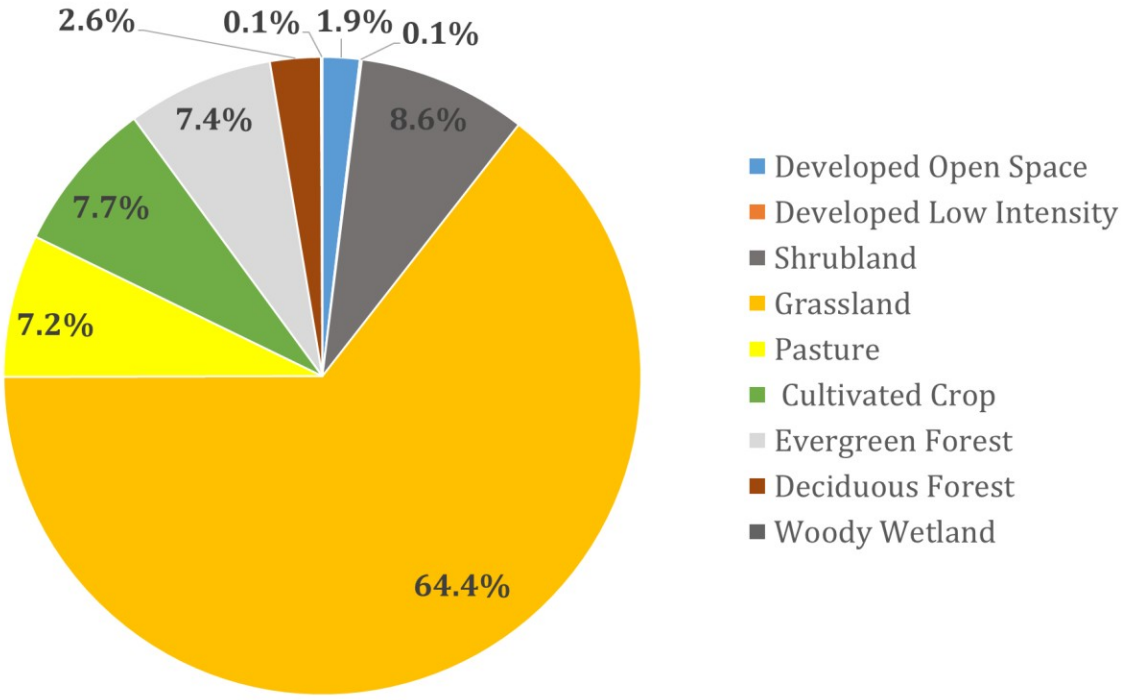

Figure 3. Working land categories (%) for all TFRLCP projects based on the National Land Cover Database (NLCD), 2016.

Financial Leveraging

In 2016, the TFRLCP leveraged $7.50 for every $1 of program funds. Using Texas A&M's Real Estate Center 2015 market data, the Program's investment of $1.9M protected land valued at over $16.6M, thus achieving an 8:1 return on investment (ROI, Table 5). Further, the TFRLCP's $1.9M investment conserved over $11.6M in estimated water resources and protected over 10,000 acres of working lands at a cost of $179 per acre (Table 5).

Rural land values (2015) from the Texas A&M Real Estate Center were applied to each project. The limitation of this data is that it is not county specific but rather regional estimates in what are called *land market areas*. Using these estimates (tend to be conservative) yielded a total market value of $16.6M for the 7 projects. Refining this analysis based on qualified appraisals, when available, would enhance the Program's effectiveness and help establish an accurate historical data record for the Program

The TFRLCP effectively leveraged conservation dollars (i.e., NRCS, in-Kind, etc.) and achieved a strong return on investment (ROI), the latter referring to the market value of the projects it is protecting compared to program dollars invested. TFRLCP achieved a 7:1 leverage ratio and an 8:1 ROI (Table 5). Although the TFRLCP does not require matching funds, one program goal is to leverage its funding. In contrast, the Natural Resource Conservation Service's Agricultural Conservation Easement Program (ACEP) does require a local match of 50% of the ACEP grant, which can be achieved through a TFRLCP grant or other private money. The report accounts for NRCS funding and other monetary contributions towards the projects' value. Key leveraging highlights achieved during the initial funding cycles are as follows:

- TFRLCP paid $179/acre.
- Grant awards averaged 23.4% of the CE/Project value.
- Three of seven projects (43%) leveraged both federal and other dollars.
- Five of seven projects (71%) leveraged either federal or other dollars.

Using the ACEP formula as a starting point (CE Value = 50% ACEP + 50% of ACEP as local match + In Kind), TFRLCP should consider a grant benchmark range of 25-50% of CE value in evaluating future grant awards. As an example, if a grant award, as a percentage of the CE value, came in at 60%, then TFRLCP should ensure an appropriate justification is provided and additional financial metrics are considered.

Table 5. Texas Farm and Ranch Lands Conservation Program project financial analysis, 2016.

Project	County	Estimated Market Value [a]	CE Value [b]	NRCS Contribution [b]	TFRLCP Grant Award [b]	In-Kind Contribution [c]	Grant as % of CE Value [d]
Puryear	Travis	$1,975,825	$5,656,850	$2,500,000	$131,850	$3,025,000	2.3%
Albritton	Bandera	$5,400,000	$975,000	$650,000	$325,000	$0	33.3%
Dreamcatcher	Hays	$980,288	$3,375,589	$2,467,500	$378,089	$240,000	11.2%
Lazy Bend	Hays	$669,456	$1,026,925	$0	$75,925	$951,000	7.4%
Javelina	Hidalgo	$875,000	$669,300	$0	$400,000	$269,300	59.8%
Santa Anna	Coleman	$4,438,418	$834,060	$417,030	$208,515	$208,515	25.0%
Pietila	Culberson	$2,326,652	$1,500,000	$750,000	$375,000	$375,000	25.0%
TOTAL		$16,665,638	$14,037,724	$6,784,530	$1,894,379	$5,068,815	23.4% [e]

[a] = Texas A&M Real Estate Center rural land values, 2015.

[b] = Provided by TFRLCP applications

[c] = CE Value – (NRCS Contribution + TFRLCP Award)

[d] = (Grant award divided by CE value) x 100

[e] = Column average

IV. Future Demand

The TFRLCP demand was evaluated through preliminary results from a landowner questionnaire that included questions pertaining to conservation easement program participation and land trust survey data gauging potential projects that would qualify for the program. Below is a summary of both measures.

Landowner Questionnaire

To better understand private landowner needs and concerns regarding the management of working lands, the TPWD PLAC conducted a landowner questionnaire. Two questions served to provide insight into landowner willingness to participate in conservation easement programs like the TFRLCP. Preliminary data (n=2,464 as of 12/13/2016) were used to determine potential landowner willingness to participate in the program. Of the respondents, 89% were male and 11% were female, with an average landowner age of 63 years of age.

When asked how likely landowners were to implement a conservation easement within the next 10 years, approximately 13.57% of respondents were "very likely" or "somewhat likely" (Figure 4). Survey results suggest that 1 in 7 landowners would be interested in participating or at least learning more about the opportunities afforded by the TFRLCP in the next 10 years when many landowners are approaching retirement age. With approximately 250,000 Texas landowners, that represents approximately 34,000 landowners willing to participate in the program. A second question where time period was not a factor, landowner's willingness to participate in a conservation easement program increased to 33.61% (Figure 4). Collectively, these survey results suggest that an ample supply of willing landowners are likely to exist in the next few years with a well-funded TFRLCP.

Land Trust Program Partners

The Texas Land Trust Council (TLTC) is composed of over 30 land trust members, which are shown below. These groups are non-profit organizations established for the purpose of land and water conservation and represent the key partners for the TFRLCP, serving as the holders of the conservation easements funded through the program. The program serves as a model for a strong public-private partnership between the State of Texas, private landowners, and the NGO community working together to conserve the lands and waters of Texas.

Land Trust Questionnaire

The TLTC issued a questionnaire to its land trust members to assess potential demand for participation in a state-funded conservation easement program. The responses identified 82 eligible projects representing 132,641 acres across 42 counties in the state (Figure 5). Using Texas A&M University Real Estate Center land market area data from 2015, these projects represent a potential land market value of ≈$393M, which translates into a conservative ≈$117M+ conservation easement value (30% of MV). Using these estimates TFRLCP could conceivably leverage $117M with approximately $29.25M in appropriated funding.

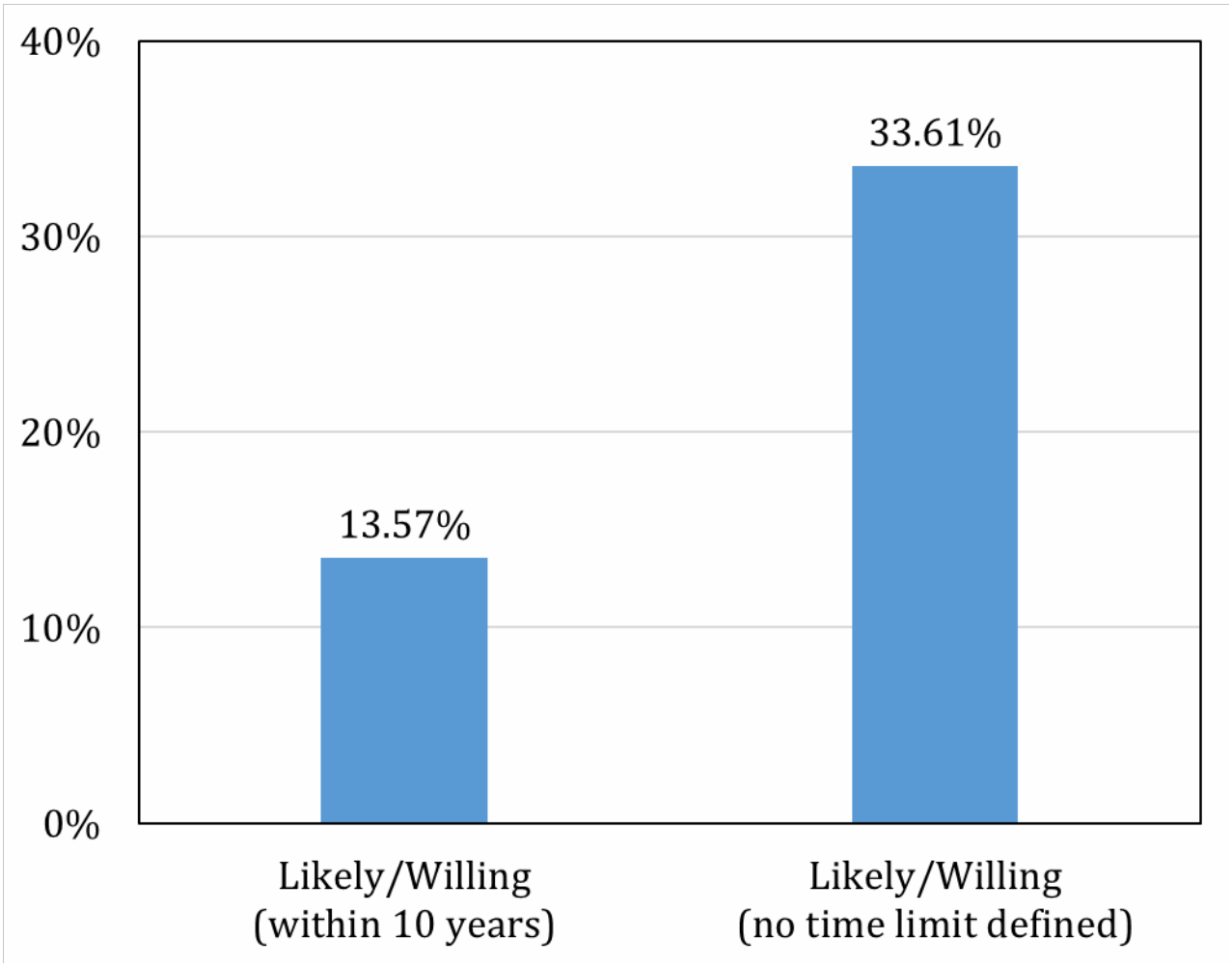

Figure 4. Texas landowner willingness to participate in conservation easement program based on Texas landowner survey (TPWD PLAC/IRNR).

Questions below:

For some, land is a legacy, a heritage, and a business. In the next 10 years, how likely are you to implement a conservation easement?

Indicate your willingness to participate in permanent land protection program (i.e., agricultural conservation easement).

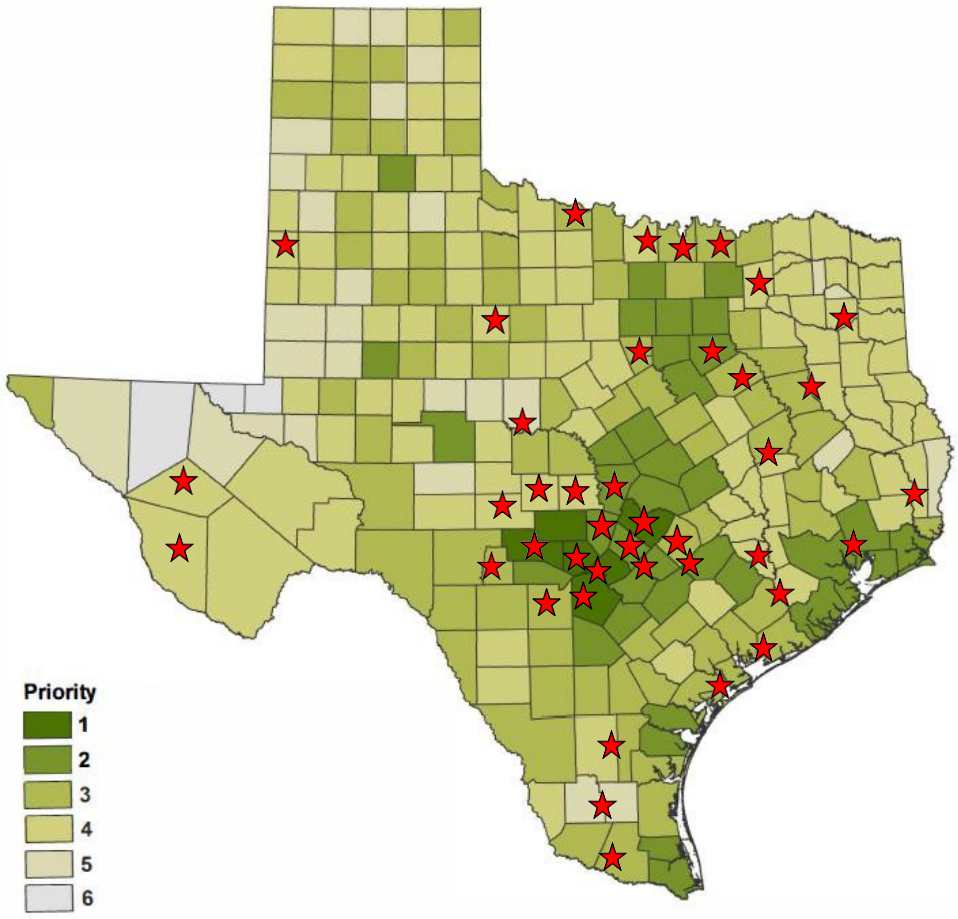

Figure 5. Potential Texas Farm and Ranch Lands Conservation Program Demand (132K acres)

V. Key Findings and Recommendations

The report objectives were to evaluate the TFRLCP effectiveness in the awarding of $1.9M in the last two grant cycles. This report compared TFRLCP projects and their potential contributions to water resource protection, working land conservation, and financial leveraging opportunities – all key indicators to program effectiveness. Below are suggested strategies to improve future program execution.

Water Analysis. —TFRLCP projects conserved approximately 8,248 acre-feet of water with a replacement cost valued at over $11.6M, which represents a 6:1 cost savings (i.e., defined as the cost for replacing that water source) over non-land conservation strategies for the same water volume. From a water management strategy perspective, land conservation should be considered a low-cost, effective strategy for protecting Texas' water resources.

Recommendation—One area where the program could improve upon would include the development of standard performance water metrics that can be applied in the evaluation of future projects. This would serve to standardize key metrics (e.g., riparian area, width of buffer, water quality, etc.) and facilitate data collection from the land trust community to allow side-by-side comparisons in final project evaluation. Similar metrics should be developed and applied to the working lands aspect of the project evaluation process as well (see below).

Working Land Analysis. — The largest land use was grassland at (64%) followed by pastureland (7%), cropland (8%), and forestland (16%) (Figure 3). Other features noted in the project assessments included protection of approximately >5.5 miles of river/creeks (Dreamcatcher, Lazy Bend, Pietila, Puryear, and Santa Anna), 25 acres of wetlands (Javelina), and 99 acres of aquifer recharge zone (Dreamcatcher).

Recommendation—TFRLCP should consider incorporating a system such as the National Land Cover Database or other similar database to help standardize land metrics and enable a side-by-side comparison of project applications.

Financial Leverage Analysis. —TFRLCP performed exceptionally well in leveraging partner conservation dollars to base funding achieving a 7:1 leverage ratio. The TFRLCP also achieved an ROI range of 8:1. Further, TFRLCP projects were located in diverse areas from urban counties to more rural counties. In the case of the latter, approximately 8,468 acres, or 83% of the total project acres, were found in rural regions of the state with a low threat of working land loss and/or increasing human population. Interestingly, these low risk projects also resulted in the greatest ROI from a financial perspective as well as overall water contribution. These projects also accounted for a lower proportion of program grant funds (i.e., $583,515 or 30% to protect 83% of total program acres).

Recommendation— TFRLCP should develop a defensible method for determining initial market values to inform the ROI discussion. Continued refinement of financial information can serve to compare trends in program performance over time and to solicit future program support. A tiered-system could be employed where highly urban counties (e.g., priority 1) or low-risk counties (e.g., priority 6) receive a lower focus or priority to facilitate an optimization of TFRLCP program funds, both in leveraging of funds and targeting of lands at risk of conversion or fragmentation. Concurrently, program flexibility is needed as projects that may arise in those "low-risk" counties might also represent extremely appealing conservation opportunities. For example, prioritization exceptions might be made for projects that are adjacent to other permanently conserved lands or that represent exceptional conservation resources in need of protection.

Future Demand. —Survey estimates from both TPWD PLAC and TLTC questionnaires suggest that an ample supply of willing landowners (over 1/3) is likely to exist in the next few years with a well-funded TFRLCP. Changing landowner demographics are likely drivers to these changing attitudes towards permanent land conservation strategies and long-term efforts of land trusts in the state, which have made the familiarity of the conservation easements to landowners more apparent.

Recommendation—TFRLCP should consider working closely with the TLTC to collect annual data on potential TFRLCP projects each year. This would facilitate budget planning and provide key partner organizations (e.g., NRCS) with strong justifications for resource allocations in future years of the program.

VI. References

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